| Work Orde Tuesday, April 12 | | | | | | | | | | | | | Page 1 |
|--------------------------------|----------------------------------|--------------------------------|--------------------------------|--------------|----------------------|------------------------|--------|--------------|----------|--------------|---------------|------------------|----------------|
| Item ID: Revision ID: | D3278-3 | | | £ | Accept | | | | | Setup | | | |
| | Spacer 4/12/2011 4/18/2011 | Start Qty: 40 Req'd Qty: 40 | | | | Cust Item Customer: | | | | | Stop | | |
| • • | Process Plan | n: | Date: Date: | 40412 | Tooling: SPC (Y/N): | | oate: | | | Run | Start Stop | | |
| Sequence ID/ Work Center ID | | Operation Description | | | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept | t Rej Qty | | Reject Number | Insp. Stamp |
| Draw Nbr | Revi | ision Nbr | | | | | | | | | | | |
| D3278 | Rev | С | , | | | | | | 3/00 MMT | N (57 | t 50 | العق | |
| 100 Waterjet | | FLOW WATER JE | | | 0.00 | | | | BII | | | | |
| FLOW CNC Waterjet | t | 1-Cut a | as per Dwg D32 if necessary | 78 □Dwg Rev: | Prog Rev:_ | □2- | | 9 | Dy | 04/1 | 1 | (110) | |
| 110 | | QC2- Inspect parts | off machine FA | /FAIB | 0.00 | | | | vo u | <u> </u> | | | |
| QC Quality Control | | Memo | | | 0.00 | | | | | | | | |
| 120 | | QC8- inspect parts | - second check | | 0.00 | 1/2 | | ć | cour | 6 | | | |
| QC Quality Control | | Memo | | | 0.00 | 14/10 | | Q: | SPUIS | <u>2</u>)— | , | | |

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|---------|------|-------------------|----------------------|------------------------------|----------|------|-----------|-------------------------------|--------------------------|
| W/O: | | | W | ORK ORDER CHANG | iES | | | | • |
| DATE | STEP | PRO | CEDURE CH | ANGE | Ву | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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| Part No | | PAR #: | | | | | | | |
| | Re | esolution: | | | | | | Date: _ | |
| NCR: | | V | VORK ORE | DER NON-CONFORM | ANCE (NC | R) | | | |
| DATE | STEP | Description of NC | Lucial of | | tion B | | ification | Approval | Approval |
| | 0.2, | Section A | Initial Chief Eng | Action Description Chief Eng | Date | | ection C | Chief Eng | QC Inspector |
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Work Order ID 68340

Tuesday, April 12, 2011 10:05:52 AM



Page 2

Item ID:

D3278-3

Accept



Setup Start



Revision ID:

Start Date:

Item Name:

Spacer

4/12/2011

Start Qty: 40.00 Req'd Qty: 40.00

Cust Item ID:

Customer:

Tool ID

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Tool#

Plan

Code

Reject

Qty

Run



Required Date: 4/18/2011

QC:

Date:

SPC (Y/N):

Set Up/

Date:

Start Stop

Reject

Number

Stop

Insp.

Stamp

Sequence ID/ Work Center ID

130

Small Fab

Small Fab

Operation Description

Small Fab

Memo 1-C'sink as per dwg D3278□2-Deburr

Run Hours 0.00

0.00

140

QC

Quality Control

QC5- Inspect part completeness to step on W/O

Accept

Qty

150

Packaging

Packaging

Identify as per dwg & Stock Location:

Memo

Memo

0.00

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|---------|------|-------------------|----------------------|------------------------------|----------------|--------|--------|-------------------------------|--------------------------|
| W/O: | | | WC | RK ORDER CHANG | ES | | | | • |
| DATE | STEP | PRO | OCEDURE CHA | NGE | Ву | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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| Part No | : | PAR #: | Fault Cate | gory: | NCR: Yes | No DQ | A: | _ Date: _ | |
| | Re | esolution: | Disposition | n: | _ QA: N/C C | losed: | | Date: _ | |
| NCR: | | , | WORK ORDI | ER NON-CONFORM | ANCE (NCF | ₹) | | | |
| DATE | STEP | Description of NC | | | ion B | | cation | Approval | Approval |
| DAIL | SILF | Section A | Initial Chief Eng | Action Description Chief Eng | Sign & Date | | tion C | Chief Eng | QC Inspector |
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Work Order ID 68340

Tuesday, April 12, 2011 10:05:52 AM



Page 3

Item ID:

D3278-3

Accept



Setup Start

Run



Revision ID:

Start Date:

Item Name:

Spacer

4/12/2011

Start Qty: 40.00 Req'd Qty: 40.00

Cust Item ID:

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Start

Stop



Required Date: 4/18/2011

QC:

Date:

SPC (Y/N):

Set Up/

Date:

Stop

Sequence ID/ **Work Center ID**

160

QC

Quality Control

Operation Description

QC21- Final Inspection - Work Order Release

Memo

Run Hours 0.00

0.00

Tool ID

Tool # Plan Code

Accept Qty

Reject Qty

Reject Insp. Number

Stamp

M4 11-04-19

| W/O: | | WORK ORDER CHANGES | | | | | | | |
|---------|------|--------------------|----------------------|------------------------------|----------------|--------|--------|-------------------------------|--------------------------|
| DATE | STEP | PRO | CEDURE CH | ANGE | Ву | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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| Part No | : | PAR #: | Fault Ca | tegory: | NCR: Yes | No DC | A: | _ Date: _ | |
| | R | esolution: | Disposit | ion: | _ QA: N/C CI | osed: | | Date: _ | |
| NCR: | | V | VORK OR | DER NON-CONFORMA | NCE (NCF | R) | | | |
| | | Description of NC | | Corrective Action Section | | Verifi | cation | Approval | Approval |
| DATE | STEP | Section A | Initial Chief Eng | Action Description Chief Eng | Sign 8 Date | | tion C | Chief Eng | QC Inspector |
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Picklist Print

Tuesday, April 12, 2011 10:05:58 AM

Work Order ID: 68340

D3278-3 Parent Item:

Parent Item Name: Spacer



Start Date: 4/12/2011

Required Date: 4/18/2011

Page 1

Start Qty: 40.00

Required Qty: 40.00

Comments:

IPP . A□ 04.04.19□New issue□KJ/JLM□

IPP B 07.09.06 Rev C dwg EC Verified by: JLM

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| MDELRINS0.125 | | Purchased | No | | | 110 | sf | 0.0000 | 0.0344 | 1.448421 | 4. | | |
| | | | | | | | | | | B11- | 4-12 | | |

Black Delrin Sheet .125

116779



| W/O: | | | V | VORK ORDER CHANG | ES | | | | • |
|---------|------|--------------------------------|----------------------|--|----------------|--|------------------|-------------------------------|--------------------------|
| DATE | STEP | PROCI | EDURE CH | IANGE | Ву | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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| Part No | • | PAR #: | Fault Ca | tegory: | _ NCR: Yes | No DQ | A: | Date: _ | • |
| | R | esolution: | | | | | | Date: _ | |
| NCR: | | W | ORK OR | DER NON-CONFORMA | NCE (NC | R) | | | |
| DATE | STEP | Description of NC Section A | Initial Chief Eng | Corrective Action Section Action Description Chief Eng | on B Sign Date | & Sect | cation tion C | Approval Chief Eng | Approval QC Inspector |
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| DART AEROSPACE LTD | Work Order: | 68340 |
|------------------------------|--------------|-------------|
| Description: Spacer | Part Number: | D3278-3 |
| Inspection Dwg: D3278 Rev: C | | Page 1 of 1 |

FIRST ARTICLE INSPECTION CHECKLIST

X First Article Prototype

| | | <u></u> | | | <u> </u> | |
|----------------------|---------------|---------------------|----------------|--------|-------------------------|--|
| Drawing Dimension | Tolerance | Actual Dimension | Accept | Reject | Method of Inspection | Comments |
| 1.98 | +/-0.030 | 1.985 | 4 | | U BOZ | |
| 1.98 | +/-0.030 | 1.980 | Y E | | V | |
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| Measured by: B | Audited by: | | Prototype Approval: | N/A |
| Date: 11-4 | Date: | 11/04/18 | Date: | N/A |

| Rev | Date | Change | Revised by | Approved |
|-----|----------|-----------------------------------|------------|----------|
| Α | 04.04.19 | New Issue P/O D3278-041 | KJ/JLM | |
| В | 06.03.09 | Dwg Rev updated | KJ/JLM | |
| С | 07.02.02 | Dwg updated per JLM | KJ/JLM | |
| D | 07.09.26 | Dimensions updated per Dwg Rev. C | KJ/EC | B |
| | | , | 171 | ······ |

| W/O: | 1 | | V | VORK ORDER CHANGI | <u> </u> | | | |
|---------|------|-------------------|----------------------|-------------------------------|----------------|--------------|-------------------------------------|--------------------------|
| DATE | STEP | PROC | CEDURE CH | HANGE | Ву | Date Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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| Part No | * | PAR #: | _ Fault Ca | tegory: | NCR: Yes | No DQA: | Date: _ | |
| | R | esolution: | Disposit | tion: | QA: N/C Cld | sed: | Date: _ | |
| NCR: | | W | ORK OR | DER NON-CONFORMA | NCE (NCR |) | | |
| DATE | CTED | Description of NC | | Corrective Action Section | | Verification | Approval | Approval |
| DATE | STEP | Section A | Initial Chief Eng | Action Description Chief Eng | Sign & Date | Section C | Chief Eng | QC Inspector |
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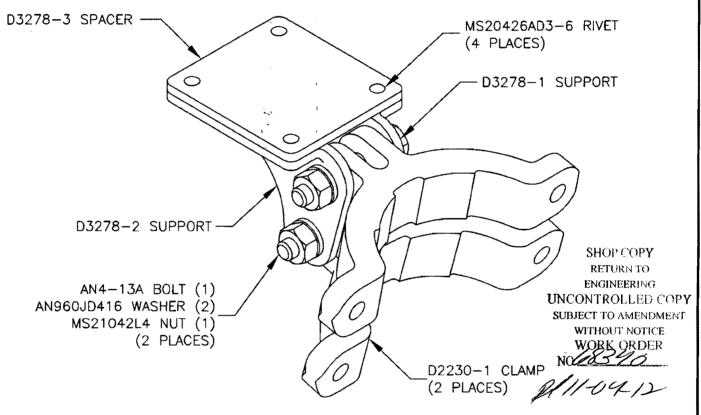
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| 1 | CHEC | (ED | APPROVED | DRAWING NO. | REV. C |
| | | _P | # | D3278 SHEET | 1 OF 3 |
| | DATE | | | TITLE | SCALE |
| | 07.0 | 7.24 | | SUPPORT ASSEMBLY | NTS |
| | Α | | 04.03.03 | NEW ISSUE | |
| | В | | 05.03.31 | CHANGE DIM/TOL TO ENSURE FIT | |
| | С | | 07.07.24 | CHANGED RIVETS PER PAR #185 | |

RELEASED

D3278-041 SUPPORT ASSEMBLY



| Qty | Part Number | Description | |
|-----|--------------|------------------|----------|
| Х | D3278-041 | SUPPORT ASSEMBLY | |
| | | | |
| 2 | D2230-1 | CLAMP | |
| 1 | D3278-1 | SUPPORT | |
| 1 | D3278-2 | SUPPORT | |
| 1 | D3278-3 | SPACER | |
| | | | |
| 2 | AN4-13A | BOLT | |
| 4 | AN960JD416 | WASHER | \sqcap |
| 4 | MS20426AD3-6 | RIVET | |
| 2 | MS21042L4 | NUT | |

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| W/O: | | WORK ORDER CHANGES | | | | | | | | | |
|---------|----------------------------------|---|-----------------------------|----------------|-----------|--|-------|-------------------------------------|--------------------------|--|--|
| DATE | STEP | PROCEDURE CHANGE | | | Ву | Dat | e Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector | | |
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| Part No | : | PAR #: | Fault Cate | gory: | _ NCR: Ye | s No | DQA: | _ Date: _ | | | |
| | Re | esolution: | Disposition: | | | | | | | | |
| NCR: | | 1 | WORK ORD | ER NON-CONFORM | ANCE (NO | CR) | | | | | |
| | 0=== | Description of NC | Corrective Action Section B | | | Verification | | Approval Chief Eng | Approval QC Inspector | | |
| DATE | STEP Description of NC Section A | Initial Action Descript Chief Eng Chief Eng | | Sigr Da | 1 & | Section C | | | | | |
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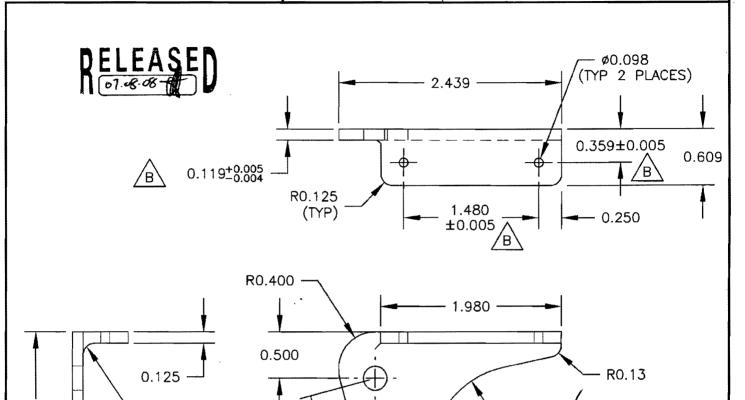


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| CHECKED 13 | APPROVED | DRAWING NO. | REV. C |
| | 一切 | D3278 | SHEET 2 OF 3 |
| DATE | | TITLE | SCALE |
| 07.07.24 | | SUPPORT ASSEMBLY | 1:1 |

R1.00

Ø0.257

(TYP 2 PLACES)



D3278-1 SUPPORT (SHOWN) D3278-2 SUPPORT (OPPOSITE)

R_{0.125}

1.720

- 1) MACHINE PER DWG FILE "D3278-1.SLDPRT"
- 2) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) BAR

PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)

PER AMS-QQ-A-200/8 (OR AMS 4160)

0.875

R0.375

(REF. DART SPEC. M6061T6B)

- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 POWDER COAT WHITE (4.3.5.1) PER DART QSI 005 4.3
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 6) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

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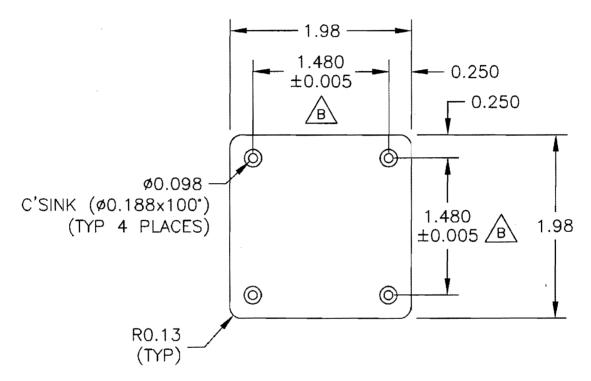
| W/O: | | | W | ORK ORDER CHANG | ES | | | | |
|----------|------------------------|---------------------------------------|-----------------------------|------------------------------|------------|------------------|-----------|-------------------------------|--------------------------|
| DATE | STEP | PROC | PROCEDURE CHANGE | | | Dat | te Qty | Approval Chief Eng./ Prod Mgr | Approval QC Inspector |
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| Part No: | : | PAR_#: | PAR #: Fault Category: | | | NCR: Yes No DQA: | | | |
| | R | esolution: | | | | Closed | Date: | | |
| NCR: | | · W | ORK OR | DER NON-CONFORMA | NCE (NC | CR) | | | |
| DATE | STED Description of NC | | Corrective Action Section B | | | Verificatio | | Approval | Approval |
| DATE | STEP | Section A | Initial Chief Eng | Action Description Chief Eng | Sigr Da | | Section C | Chief Eng | QC Inspector |
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| DATE | • | TITLE | | SCALE |
| 07.07.24 | | SUPPORT ASSEMBLY | | 1:1 |





w/o 68348

D3278-3 SPACER

1) MATERIAL: DELRIN II 150E OR ACETRON GP ACETAL

(REF. DART SPEC. M-DELRIN-B0.125x2.000) OR

DELRIN II 150E OR ACETRON GP ACETAL (REF. DART SPEC. M-DELRIN-S.125)

- 2) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE NOTED

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| W/O: | | | WO | RK ORDER CHANG | ES | | | | |
| DATE | STEP | PRÓCEDURE CHANGE | | | Ву | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
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| Part No | | PAR #: | Fault Categ | jory: | _ NCR: Yes | No DQ | 4: | Date: _ | |
| | Res | solution: | Disposition | : | _ QA: N/C Cld | sed: | | Date: _ | |
| NCR: | | | WORK ORDE | R NON-CONFORMA | ANCE (NCR |) | | | |
| DATE | STEP Descrip | STEP Description of NC Section A | Corrective Action Section B | | | Verification | | Approval | Approval |
| | | | Initial Chief Eng | Action Description Chief Eng | Sign & Date | Section C | | Chief Eng | QC inspector |
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